DISSTON FILES

THEIR SELECTION AND CARE

Disston makes a complete line of Regular, Superfine, and Special Files. These lines combined comprise more than 250 kinds of files, and more than 1,000 different cuts and sizes. In this extensive line are files to meet every need of file users for either metal or wood work.

Disston makes files that weigh only a fraction of an ounce. The other extreme is a file weighing 135 pounds.

The manufacture of so great a variety of files is due to the fact that they are used to some extent by practically every industry, workshop and home.

Approximately 18,000,000 Disston files are made annually. Disston not only *makes* files, but in normal times as many as 35,000 dozen are used in the Disston Philadelphia plant, for filing saws—steel cutting steel, millwork, etc. This constant use of so many files in the Disston factory affords an unusual check, day after day, on the uniformity and quality of Disston files. From experience, Disston knows what a file should do, and they have the manufacturing facilities to make files which will meet the most exacting requirements. This is why makers of precision tools, and production shops all over the world consider Disston files the best for the job.

Disston File Steel

The co-operation of Disston steel makers and Disston file makers, in experimenting, checking and testing, has resulted in developing an unusually high-grade file steel—hard, tough, and of uniform quality. This uniform quality is maintained by laboratory tests and by actual tests of the finished file in Disston's specially equipped testing room. Hence, Disston files have built-in qualities not found in other makes.

File Making Machinery

Special machines have been developed in the Disston plant, which, in addition to other modern factory equipment, enables Disston expert workmen to make files with the following outstanding features:

Correct pattern
Clean, strong, sharp teeth
Cut at correct angles
Uniform in width

This, in addition to the famous Disston File Steel, is why Disston Files

Cut Faster
Last Longer

Major Operations in Making Regular Files

There are many operations in file making from the making of the steel to the finished product. It is remarkable that a tool which must pass through so many progressive operations can be sold for so nominal a figure as a Disston quality file. Here are the major operations:

Cutting steel to size
Forging tangs
Pointing and shaping blanks
Annealing
Straightening blanks
Grinding edges
Stripping edges
Cutting edges
Grinding sides
Stripping sides, Cutting sides
Inspection at this stage
Cropping the tangs
Cropping the points
Stamping, Straightening
Pasting for protection during hardening
Baking paste, Hardening, Bluing
Scrubbing, Drying, Oiling
Eye Inspection, Proover testing
Ringing test, Wrapping
Boxing, Packing

Know Your File Before Ordering:

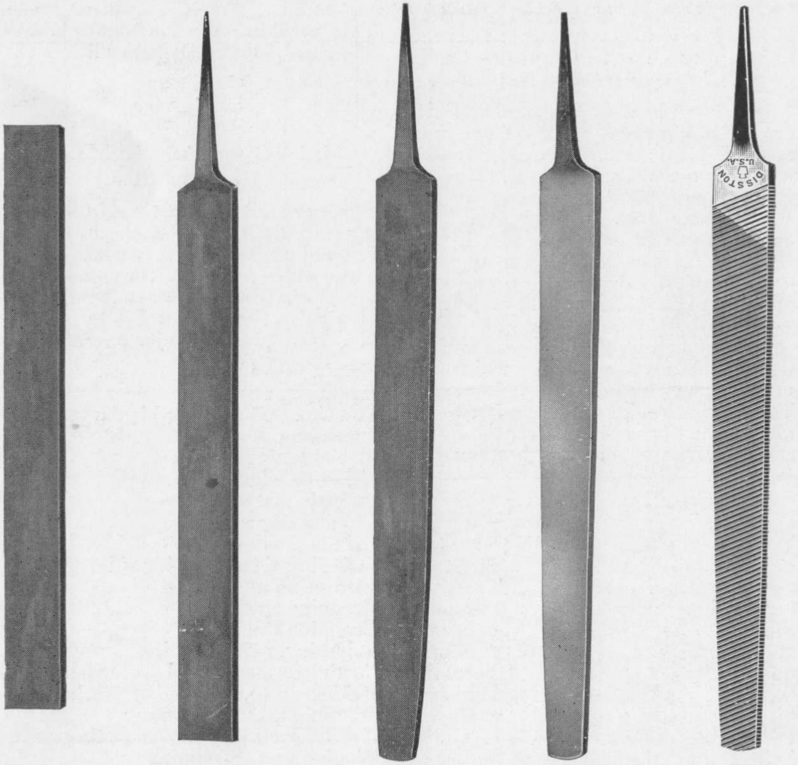
Shape, length, cut, are three important points to consider when ordering a file. The right file for the job will save time, money, and energy.

Shape—Files are classified according to their general shape. Looking at the cross-section, (see page 6), you find the various types to be rectangular, square, half-round, round, triangular, diamond shape, and oval. The most striking feature of its shape often gives a file its name. Exceptions occur in cases where the name suggests the purpose of the file or the place where it is used, such as mill, slotting, slitting, auger bit, chisel point, drill, lock, band saw, square gulleting, topping, warding, etc. In a few instances the names come from the trade derivations as Hunt's Chrome, Climax, Perfection and Shear Tooth.

In outline, which is also another phase of the shape, files may have parallel edges (blunt) or they may converge in straight or curved lines to a point; or they may taper slightly through the latter half of their length to a somewhat similar width at the point. Files also taper in thickness as they taper in width. In at least one case we find that the outline suggests the name, as in the *taper* file used in filing saws.

It is well to keep in mind that all files have some designation to describe their shape and this must be given when ordering to get the type of file desired.

FIVE MAJOR OPERATIONS IN FILE-MAKING



File Blank **Tanged** **Pointed** **Ground and Stripped** **Cut and Stamped**

TABLE "A"—DIMENSIONS OF FILES IN GENERAL USE

Length Inches	CANT SAW OR LIGHTNING		PILLAR		PIT SAW				KNIFE	
	Wide	Thick	Wide	Thick	Wide	Thick	Wide	Thick	Wide	Thick
4	...	...	...	...	5/16	5/32	5/16	13/64	15/32	1/8
4½	...	...	...	...	11/32	11/64	11/32	7/32	...	...
5	15/32	11/64	...	...	3/8	3/16	3/8	1/4	37/64	9/64
5½	...	...	...	...	13/32	13/64	13/32	9/64	...	...
6	17/32	13/64	7/16	7/32	7/16	7/32	7/16	9/32	11/16	11/64
7	39/64	15/64	...	...	1/2	1/4	1/2	19/64	...	...
8	11/16	17/64	9/16	9/32	9/16	9/32	9/16	5/16	7/8	7/32
10	27/32	5/16	11/16	11/32	...	...	...	...	1 1/16	17/64
12	1	3/8	13/16	13/32	...	...	...	...	1 9/32	21/64
14	...	...	15/16	15/32	...	...	...		...	...
16			1 1/16	17/32						

Length Inches	CABINET RASP AND FILE		HALF ROUND SHOE RASP		PLAIN HORSE RASPS		SAW FILES Triangular Shape		MILL	
	Wide	Thick	Wide	Thick	Wide	Thick	Reg. Tap. and 3 Square	Slim Tapers	Wide	Thick
3	...	...	...			..	15/64	11/64	21/64	1/16
3½	...	...	...	...	...	...	19/64	13/64	...	...
4	...	...	...	...	...	...	23/64	15/64	7/16	5/64
4½	...	...	...	...	...	...	13/32	17/64	...	...
5	...	...	...	...	...	...	7/16	19/64	17/32	3/32
5½	...	...	...	...	...	...	15/32	21/64	...	...
6	23/32	9/64	...	...	...	...	1/2	23/64	5/8	7/64
7	...	...	...	...	...		9/16	7/16	23/32	9/64
8	15/16	11/64	7/8	7/32	..		41/64	1/2	13/16	5/32
9	...	...	31/32	1/4	.	.	...	...	29/32	11/64
10	1 1/8	7/32	1 1/16	17/64	.		49/64	5/8	1	3/16
12	1 11/32	1/4	...	...	1 5/16	9/32	29/32	3/4	1 3/16	7/32
14	1 9/16	9/32	...	...	1 1/2	21/64	1 3/64	...	1 23/64	1/4
15	...	...	...		1 19/32	11/32	..	...	...	...
16	...	..	...		1 11/16	3/8	1 11/64	...	1 35/64	9/32
18		.	.		1 7/8	13/32	1 5/16		1 23/32	21/64

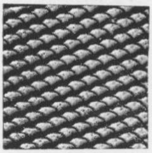
Length Inches	FLAT		HAND		HF. RD. FILE, WOOD RASP, WOOD FILE		ROUND AND SQ.	GREAT AMERICAN	
	Wide	Thick	Wide	Thick	Wide	Thick		Wide	Thick
4	7/16	7/64	7/16	7/64	7/16	1/8	5/32	...	..
5	17/32	1/8	17/32	1/8	17/32	5/32	3/16	..	...
6	5/8	5/32	23/32	3/16	5/8	11/64	7/32	9/16	9/32
7	23/32	3/16	13/16	13/64	23/32	13/64	17/64	...	...
8	13/16	13/64	29/32	7/32	13/16	15/64	19/64	21/32	5/16
9	29/32	7/32	1	1/4	...	...	11/32	3/4	21/64
10	1	1/4	1 3/32	17/64	1	9/32	3/8	13/16	11/32
12	1 3/16	19/64	1 17/64	5/16	1 3/16	11/32	1/2	31/32	3/8
14	1 23/64	11/32	1 29/64	23/64	1 25/64	25/64	5/8	...	...
16	1 35/64	25/64	1 5/8	13/32	1 37/64	29/64	3/4	.	..
18	1 23/32	7/16	1 13/16	29/64	1 49/64	1/2	7/8	...	.
20	1 29/32	15/32	2	1/2	.	.	1		.

A certain width of file should be used on saws with a certain depth of teeth. The width or size of a three-cornered Saw File should be but little more than twice the depth of the teeth of the saw to be filed. If a much larger file is used there will be a waste of file.

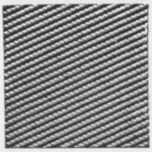
STANDARD CUTS OF REGULAR FILES

Most standard files (except saw files, which are generally single cut) are made both single cut and double cut, the character of the cut being designated by names such as bastard, second cut, and smooth cut.
The following illustrations show the different "cuts" in general use for 12-inch files. Files larger or shorter have teeth proportionately coarser or finer.

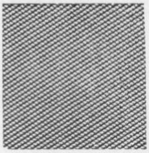
Double Cut Files



Bastard Cut



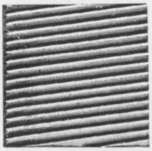
Second Cut



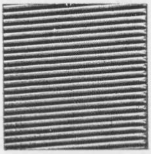
Smooth Cut

A Double Cut File has two courses of teeth or chisel cuts crossing each other, one course being finer than the other. Double Cut Files are used for fast metal cutting on bench and for general work. Double Cut is used on all Machinists' files, such as Flat, Hand, Square, Half Round, etc.

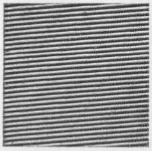
Single Cut Files



Bastard Cut



Second Cut

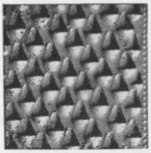


Smooth Cut

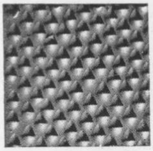
A Single Cut File has one unbroken course of teeth or chisel cuts across its surface, parallel with each other, but at an oblique angle to the length of the file. Single Cut files are distinguished for their smoothness of cut. The single cut is used on all Mill Files, and on the various Taper Saw Files.

Note: All regular files have an accepted standard character of teeth: for instance, all Flat, Half Round, Hand, Square, Three Square and other machine shop files are Double Cut. All regular Mill Saw, Taper Saw, and other Saw Files are Single Cut.

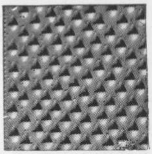
RASPS



Bastard Cut



Second Cut

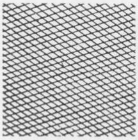


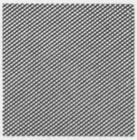
Smooth Cut

Rasps differ from Files in that the teeth are independent of each other—each tooth is formed separately by a single pointed tool or punch. Compare illustrations on this page. Rasps are used by blacksmiths, plumbers, cabinet-makers, woodworkers, rubber-workers and others, for rough work.

STANDARD CUTS OF SUPERFINE PATTERN FILES

Sections of Some Superfine Pattern Files


No. 00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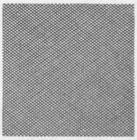
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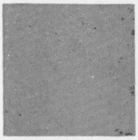

No. 6

Superfine Pattern Files are mostly double cut files. The cut is finer than Regular Cut files, and they are made in cuts 00, 0, 1, 2, 3, 4, 5, and 6. The 00 cut is the coarsest; the other numbers graduate in fineness up to No. 6. These files can be correctly termed precision tools. It is necessary that these files be made accurately as they are used on the most accurate work, which at times must be held to very close limits. Die makers are the principal users of these files, but they also are used in other industries. Watch manufacturing companies use them in large quantities. Manufacturers of machines requiring small and accurate parts such as sewing machines, special instruments, doctors' and dentists' instruments, etc., also use them.

While these industries are the larger users, practically every metal manufacturing plant has occasion to use Superfine files, some in very small quantities, others in fair size quantities. As to the various cuts, the same principle applies to Superfine Pattern as to Regular cut files, that is, the finer the teeth, the smoother the cut.

On die work there are so many different angles to file that it is necessary to make many different shapes and sizes of Superfine Pattern files. They are made in the regular shapes, such as Hand, Flat, Pillar, Half Round, Round, Square, Three Square, Warding and Knife. In addition to these, there are other shapes as follows:

Crossing, similar to Half Round, only the face is slightly oval instead of flat.

Crochet, with rounded edges.

Equalling, which is perfectly straight and parallel in width, thickness and length.

Barrette, made three-sided or with flat top.

Slitting, for filing accurate corners at any angle.

Small Needle, or Escapement Files, for very small work.

Escapement Files are made in 12 different shapes, all having square handles. They are put up in dozen lots, all of one kind, or assorted.

Small Die Sinkers' Files and Die Sinkers' Rifflers.

Grobet pattern rifflers.

The rifflers are made in many shapes and cuts. Fifty-seven different patterns are shown in the Disston File Catalog. Both ends of these rifflers are curved to various degrees. Some tapering to a round point; some parallel to a straight end; others have knife-blade shape, etc. Experience has proved that these particular shapes are best adapted to certain work—each distinctive shape to some special work. They are used extensively by die makers.

To find the file best suited for the job, it is only necessary to look over the illustrations in our file catalog and select the shape best fitted for the work. All standard shapes are illustrated.

Machine Files—These are made in the bench filing machine style, with shank, and the parallel machine style, with tang. The former cut on the draw, or pull stroke; the latter on the push stroke. They are made in different shapes as illustrated on pages 51, 52 and 53 of our file catalog. There are various kinds of filing machines on the market in which these files are used.

REGULAR FILES CLASSIFIED ACCORDING TO THEIR SHAPE AND USE

Following is a partial list of files classified according to their shape. Also, we give in alphabetical order trade name of these files, their outline, "cut", and lines of work for which they are best adapted.

RECTANGULAR

Corrugating File—Blunt; bastard, second and smooth cut. Teeth formed to cut corrugations in metal. Extensively used for "fitting up" barbers' shears. Corrugations along blade hold the hair while cut is being made.

Cross-Cut Saw File—
Imperial—Blunt, single cut; heavy.
Millward—Tapered, single cut; thin.
These files enter gullets of cross-cut saws readily; facilitate sharpening.

Flat File—Tapered; made bastard, second and smooth cut. One of the most generally used files. Used by mechanics for a great variety of work.

Flat Shoe Rasp and File—One half rasp cut, one half file cut. For shoe makers and shoe repairers.

Flat Wood File—Tapered; coarse, double cut. As the name indicates, used by woodworkers.

Flat Wood Rasp—Tapered; rasp cut, bastard. Used principally by wheelwrights and carriage makers.

Flexible Milled Shear Tooth—No tang. Made 1⅜″ wide; 14″ in length, only. Single cut, milled with 10 or 12 cuts to the inch. Used on handle for filing automobile bodies and for filing soft metals.

Hand File—Tapering in thickness but parallel in width; one safe edge; bastard, second and smooth cut. Used by machinists and engineers for finishing flat surfaces.

Horse Rasps—*Plain Half File*—Coarse; rasp cut; blunt. Tapered in thickness to both ends, which are rounded. For horse and mule shoers. Made with and without tang.

Plain Slim—Also made without tang. *All rasps without tangs are reversible.*

Magneto Files—*Regular and Midget*—Single and double cut. For cleaning magnetos, spark plugs, etc. Regular, 3½″ in length; Midget, 2½″ in length.

Mill Saw File—*Tapered*—Made bastard, second and smooth cut. For sharpening mill saws, mowing machine knives, planes, etc. In machine shop, for lathe work, draw filing, and sometimes for finishing brass and bronze.

Blunt—Same as Mill Saw File, except blunt in shape. Used for the same purposes as the mill tapered file. The use of the tapered or blunt mill file depends on file user's preference.
Round Edge (one and two)—Used for filing gullets between saw teeth.

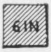
Perfection Shear Tooth File—Tapers in width and thickness. Shear teeth—coarse, medium, or fine cut. Used for filing soft steel, iron, brass castings, wood, marble, and for machinists' and for lathe work on softer metals.

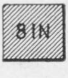
Pillar File—Parallel in width, tapers in thickness. Bastard cut, second cut, and smooth cut. Used in machine shop for narrow work. While these files come under the quadrangular list, they really are between the quadrangular and square shape.

Planer Knife File—Rounded ends. Each side of file is made half single and half double cut. As the name implies, used for sharpening carbon steel planer knives.

Warding File—Parallel in thickness. Sharp taper in width to a fine point; bastard cut, second cut and smooth cut. For jewellers, machinists and especially for locksmiths, in filing the ward notches in keys.

SQUARE

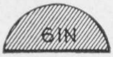


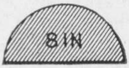


Square File—*Tapered*—Made bastard, second and smooth cut. Used principally for enlarging apertures of a square or rectangular shape.

Blunt—For use by engine builders, and railroad shops and shipyards, for the regular work in finishing or enlarging mortises, keyways, or spines of considerable length.

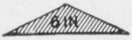
PIT SAW

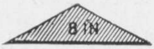




Pit Saw File—(Also known as Frame Saw File.) Blunt—made single cut. For filing the teeth of pit and frame saws.

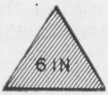
CANT OR LIGHTNING FILE

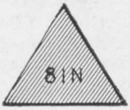




Cant or Lightning File—Somewhat like a three square file—but two sides are a trifle narrower than the third side. Made single cut. For filing cross-cut saw teeth, principally.

TRIANGULAR SECTIONS





Band Saw File—*Tapered*—single cut. Made in regular or slim pattern. Edges rounded and cut. For filing band saws.

Blunt—single cut. Made in regular or slim pattern. Edges rounded and cut. For filing band saws.

Extra Slim Taper File—Lighter stock than slim taper. Used for filing small teeth of hand saws, back saws, small band saws, etc.

Regular Taper File—*Tapers to a point.* Made with teeth cut on three sides and on edges; made single cut. The most generally used file for sharpening *hand saws.*

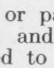
Double Cut Taper File is preferred by some for filing fine-toothed hand and back saws; also for filing metal cutting hand saws.

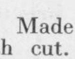
Reversible Taper File—Single cut, same as slim taper, but with the added advantage of having two files in one. Handle can be readily attached to either end.

Slim Taper File—Made from lighter stock than the regular taper, but similar to it in other respects.

Special Extra Slim Blunt Saw File—Three filing surfaces the same width entire length of file. Single cut, with row of teeth on the edges. Made blunt to assist unskilled filer in making a level, uniform stroke. For filing back saws, dovetail saws, medium and fine tooth hand saws, etc.

ROUND

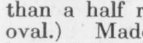


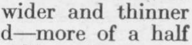


Round File—(Rat Tail Files)—*Are regularly tapered* and made bastard, second and smooth cut. Used for gulleting, enlarging holes, shaping internal curves, etc.

Blunt, or parallel. Made bastard, second and smooth cut. Better adapted to heavier work than the Round Tapered File.

HALF ROUND





Cabinet File—Tapered. (While these files are generally classed under half round, they are wider and thinner than a half round—more of a half oval.) Made double cut; coarse, bastard. Used by cabinet makers and woodworkers.

Half Round File—Tapered; made bastard, second and smooth cut. One of the most useful files for general machine shop work. Disston makes a half round file for solder and soft metal filing.

Half Round Files are sometimes made blunt.

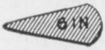
Half Round Wood File—Tapered; made double cut, coarse. Used by woodworkers generally and occasionally upon coarse brass work.

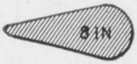
Half Round Wood Rasp—Tapered; rasp cut, bastard and smooth. Used principally by wheelwrights and carriage builders, and occasionally by plumbers and marble workers.

SPECIAL FILES

Auger Bit Files—Single cut. One flat and one three square end; also made flat on both ends. For filing auger bits.

Feather Edge File—Blunt; double cut; bastard, second cut and smooth cut. Used by machinists in making and operating calico printing machines, etc.





Great American File—Blunt; wedge shaped; round back; single cut on sides and back. For filing teeth of Great American Cross-Cut Saws.

Hunts Chrome File—Blunt; three square. Teeth on three sides and edges and cut to extreme point. For filing fine teeth on hand saws.

Knife File—Tapered from safe back to filing edge, and from butt to point. Similar in shape to a knife blade. Made bastard, second cut and smooth cut. Used for filing in V-shaped slots, principally.

Three Square Files—*Tapered*—Teeth on three sides; edges very sharp. Bastard, second and smooth cut. For filing sharp angles, cutters, taps, etc.

Blunt—Same as the Tapered Three Square File except that the three sides run parallel from shoulder to point.

HOW TO USE A FILE

1. Use file of right length, shape and cut for the job.
2. Be sure that the material to be filed is securely fastened. Loose work permits the file to chatter, thereby distorting the edge of the teeth.
3. In placing the handle on the tang of the file, do not hit the end of the file to drive it into the handle. Push the handle on, and holding the point of the file up, tap the butt end of the handle on the bench to drive the tang into place.
4. Do not exert undue pressure while filing but keep the file engaged in the cut to avoid glazing, which distorts the keenness of the teeth.
5. Never allow a file to slip over the work. This dulls the teeth.
6. Be sure to raise the file slightly during the return stroke in order to clear the work and prevent dulling by wearing away the back of the teeth, thus destroying the cutting edges. This, however, does not hold true in the filing of soft metals, such as lead, aluminum, etc. The correct procedure in this case is to draw the file back along the metal on the return stroke as an aid in cleaning the teeth.
7. On completing your work, do not throw the file on the bench. Lay it down with all the degree of respect that is due a quality tool. Remember that to do their work effectively, files must be made as hard as fire and water can make them. Consequently the teeth may be chipped by rough handling.
8. In filing saw teeth, the file should be twice the width of the tooth in order to get full filing service of the three sides of the file.

Correct holding of the file is essential to assure the greatest length of strokes and the maintenance of the right path for the file. Work should be done at the proper height so that the position may be easy and natural. See illustrations and instructions, pages 14 and 15.

SIZES AND TYPES OF DISSTON FILES AND RASPS
in Accordance with
Simplified Practice Recommendation No. 6

Sizes and types of Disston Files and Rasps are in accordance with Simplified Practice Recommendation No. 6, as recognized and recommended by the United States Department of Commerce, through the Bureau of Standards, and which has been endorsed unanimously by manufacturers, distributors and users of files and rasps. As listed in Simplified Practice Recommendation No. 6, they are as follows:

FILES

Mill:
Bastard, 3, 4, 5, 6, 7, 8, 9, 10, 12, 14, 16, and 18 inch.
Second cut, 4, 5, 6, 7, 8, 9, 10, 12, 14, and 16 inch.
Smooth, 6, 8, 10, 12, 14, and 16 inch.

Mill (1 R.E.):
Bastard, 6, 7, 8, 9, 10, 12, and 14 inch.
Second cut. 6, 7, 8, 9, 10, and 12 inch.

Mill (2 R.E.):
Bastard, 6, 7, 8, 9, 10, and 12 inch.
Second cut, 6, 8, 10, and 12 inch.

Mill (blunt):
Bastard
Second cut } 6, 7, 8, and 10 inch.

Tapers:
Single cut, 3, 3½, 4, 4½, 5, 5½, 6, 7, 8, 10, and 12 inch.
Double cut, 4, 4½, 5, 6, 7, and 8 inch.
Slim, 3, 3½, 4, 4½, 5, 5½, 6, 7, 8, 10, and 12 inch.
Extra slim, 4, 4½, 5, 5½, 6, 7, and 8 inch.
Double extra slim, 4, 4½, 5, 5½, 6, 7, and 8 inch.

Handsaw:
Blunt, 4, 4½, 5, 6, 7, and 8 inch.
Blunt slim, 4, 5, 6, and 8 inch.

Bandsaw (blunt and taper):
Regular, 4, 4½, 5, 6, 7, 8, and 10 inch.
Slim, 6 and 8 inch.

Pit saw, 4, 4½, 5, 5½, 6, 7, and 8 inch.

Double ender, 7, 8, 9, 10, and 12 inch.

Cant saw, 5, 6, 7, 8, 10, and 12 inch.

Cross-cut, 6, 8, 9, 10, and 12 inch.

Planer knife, 8 and 10 inch.

Flat:
Bastard, 4, 5, 6, 7, 8, 9, 10, 12, 14, 16, 18, and 20 inch.
Second cut
Smooth } 4, 5, 6, 7, 8, 9, 10, 12, 14, 16, and 18 inch.

Hand:
Bastard, 4, 5, 6, 7, 8, 9, 10, 12, 14, 16, 18, and 20 inch.
Second cut
Smooth } 4, 5, 6, 7, 8, 9, 10, 12, 14, 16, and 18 inch.

Square:
Bastard, 4, 5, 6, 7, 8, 10, 12, 14, 16, 18, and 20 inch.
Second cut
Smooth } 4, 5, 6, 7, 8, 10, 12, 14, 16, and 18 inch.

Three Square:
Bastard
Second cut
Smooth } 4, 5, 6, 7, 8, 10, 12, 14, 16, and 18 inch.

Half Round:
Bastard
Second cut
Smooth } 4, 5, 6, 7, 8, 10, 12, 14, 16, and 18 inch.

Round:
Bastard, 4, 5, 6, 7, 8, 9, 10, 12, 14, 16, 18, and 20 inch.
Second cut
Smooth } 4, 5, 6, 7, 8, 9, 10, 12, 14, 16, and 18 inch.

Warding:
Bastard
Second cut
Smooth } 4, 5, 6, 8, and 10 inch.

Knife:
Bastard
Second cut
Smooth } 4, 5, 6, 8, 10, and 12 inch.

Pillar:
Bastard, 6, 8, 10, 12, 14, and 16 inch.
Second cut
Smooth } 6, 8, 10, and 12 inch.

Square Blunt Bastard, 8, 10, 12, 14, 16, and 18 inch.

Round Blunt Bastard, 8, 10, 12, and 14 inch.

Lead Float and Wood Files:
Flat
Half round } 6, 8, 10, 12, 14, and 16 inch.

DISSTON FILES

Hand Finishing:
Second cut
Smooth } 12 and 14 inch.

Cabinet Files, 6, 8, 10, 12, and 14 inch.

RASPS

Cabinet Rasps:
Second cut
Smooth } 6, 8, 10, 12, and 14 inch.

Half Round Wood Rasps:
Bastard
Smooth } 6, 8, 10, 12, 14, and 16 inch.

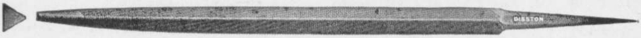
Flat Wood Rasps:
Bastard
Smooth } 8, 10, 12, 14, and 16 inch.

Shoe Rasps:
Flat
Half round } 8, 9, and 10 inch.

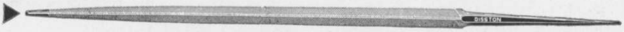
Horse Rasps. Plain:
½ file, 12, 14, 15, 16, and 18 inch.
Slim (½ file), 16, 18, and 20 inch.

Horse Rasps, Tanged:
Regular, 12, 13, 14, 15, and 16 inch.
Slim, 14, 15, and 16 inch.
Thin, 12, 13, 14, 15, and 16 inch.

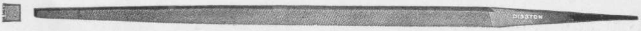
A FEW OF THE MOST USED FILES ILLUSTRATED



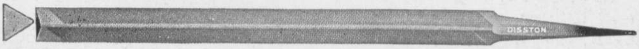
TAPER



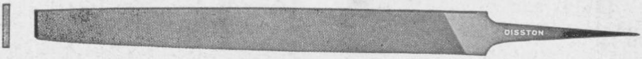
SLIM TAPER



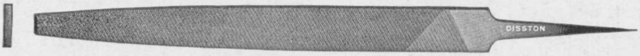
SQUARE



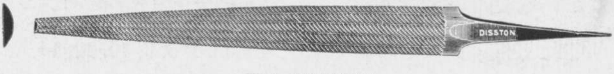
BLUNT BAND



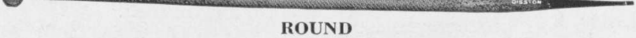
MILL



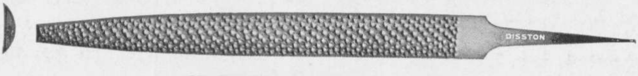
FLAT BASTARD



HALF ROUND



ROUND



HALF ROUND WOOD RASP

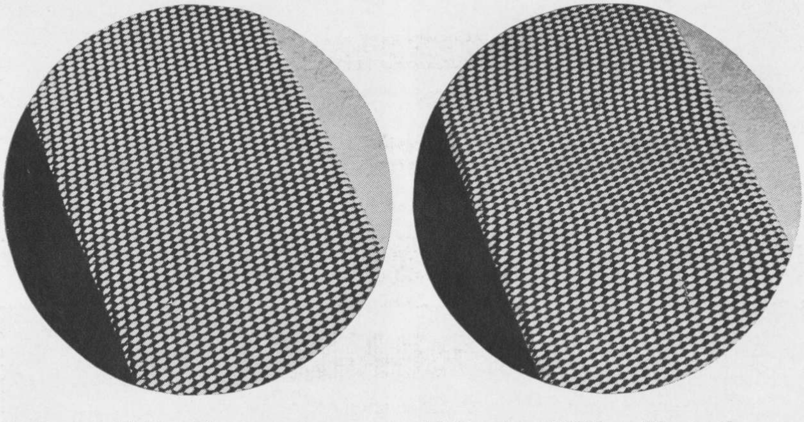
THE NEW
Disston Bite-Rite File

The Disston Bite-Rite File is new—an exclusive product of Disston engineering . . . a file that is **different from any other**—one that combines cutting speed, long life and smoothness of filed surface.

Disston Bite-Rite is so different from ordinary files that one can feel the difference . . . feel it cutting straight instead of running to the side . . . feel the way it cuts long, curled shavings . . . and feel the ease with which it takes hold.

The Disston Bite-Rite File has a different tooth shape—it has a different shaped gullet . . . it is non-clogging . . . it gives a smoother finish to the work . . . it cuts shavings, not dust . . . it does faster work . . . it lasts longer.

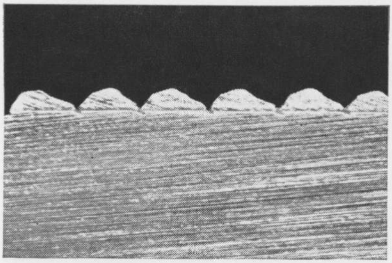
Study the illustrations shown below. They were made from enlarged photographs looking into the cutting face of the teeth. At left is shown the ordinary file with straight rowing of teeth; at right is shown the new Bite-Rite with staggered teeth.



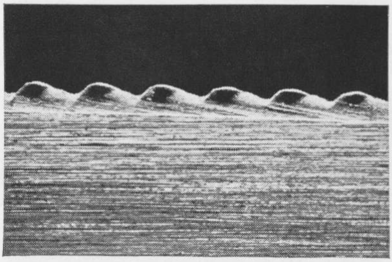
OLD and NEW. The best there *was!* And, the best there *is!* These illustrations are made from photographs looking *into* the cutting face of the teeth. They show the OLD type file, with its straight rowing of teeth, which tends to plough furrows through the work,— AND—the NEW, with teeth staggered like a harrow, which cuts and levels and smooths the work at each stroke—a file that successfully and efficiently combines speed of cut (production), long life and smoothness of filed surface.

Smooth Cutting Face

The Disston Bite-Rite tooth, seen here in contrast with ordinary file teeth, is sturdy and sharp, has correct contour of cutting tip, proper support at back, and rugged shoulder. Exclusive product of Disston engineering.



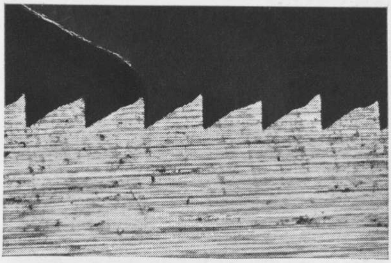
Ordinary File:
Ragged and Weak



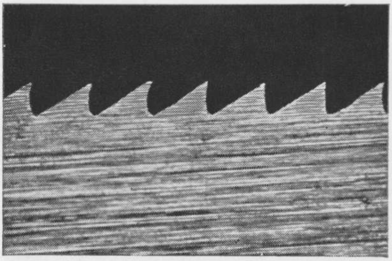
Bite-Rite:
Sturdy, Smooth, Long Life

Non-Clogging Gullets

With the Bite-Rite ideal tooth, Disston engineering achieves gullet formation assuring free discharge of chips; faster, cleaner work. Photographs show ordinary file gullet, sharp and congested, in contrast with round, smooth, open Disston Bite-Rite gullet.



Ordinary File:
Clogging Gullets

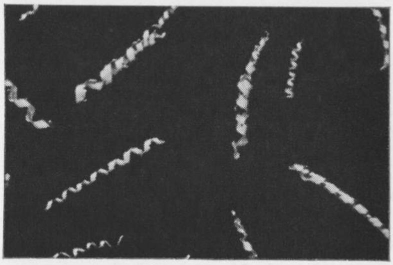


Bite-Rite:
Disston Non-Clogging

New Fast Speed

Chips tell the story! Short, crushed, clogging fragments from ordinary file, requiring many strokes. Heavy, long, curling chips from Bite-Rite, requiring fewer strokes; the result of Disston tooth design and free gullet.

Ordinary File:
Light, short, crushed chips



Bite-Rite:
Heavy, long, curling chips

DISSTON BITE-RITE FILES

This list comprises the types and sizes of Bite-Rite Files that will be carried in stock by distributors of Disston Bite-Rite Files:

Mill:

Bastard, 3, 4, 5, 6, 7, 8, 10, 12, 14, 16 and 18 inch.

Second Cut, 4, 5, 6, 7, 8, 9, 10, 12, 14 and 16 inch.

Smooth, 4, 6, 8, 10, 12, 14 and 16 inch.

Mill (1 R. E.):

Bastard, 6, 8, 10, 12 and 14 inch.

Second Cut, 8, 9, 10 and 12 inch.

Mill (2 R. E.):

Bastard, 6, 8, 10 and 12 inch.

Second Cut, 6, 8 and 10 inch.

Tapers:

Regular, 3, 3½, 4, 4½, 5, 5½, 6, 7, 8, 9, 10 and 12 inch.

Slim, 3, 3½, 4, 4½, 5, 5½, 6, 7, 8, 9, 10 and 12 inch.

Extra Slim, 3, 3½, 4, 4½, 5, 5½, 6, 7, 8 and 10 inch.

Double Extra Slim, 4½, 5, 5½, 6, 7 and 8 inch.

Hand Saw:

Blunt, 5, 6 and 7 inch.

Blunt Slim, 6 inch.

Band Saw:

Blunt—

Regular, 6, 7, 8 and 10 inch.

Slim, 6, 7 and 8 inch.

Taper—

Regular, 5, 6, 7 and 8 inch.

Slim, 6, 7 and 8 inch.

Flat:

Bastard, 4, 5, 6, 7, 8, 10, 12, 14, 16 and 18 inch.

Second Cut, 4, 5, 6, 8, 10, 12, 14 and 16 inch.

Smooth, 4, 5, 6, 8, 10, 12, 14 and 16 inch.

Hand:

Bastard, 4, 6, 8, 10, 12, 14 and 16 inch.

Second Cut, 4, 6, 8, 10, 12 and 14 inch.

Smooth, 4, 6, 8, 10, 12 and 14 inch.

Square:

Bastard, 4, 5, 6, 7, 8, 10, 12, 14, 16 and 18 inch.

Second Cut, 4, 5, 6, 8, 10, 12, 14 and 16 inch.

Smooth, 4, 5, 6, 8, 10, 12 and 14 inch.

Three Square:

Bastard, 6, 8, 10, 12 and 14 inch.

Second Cut, 6, 8, 10 and 12 inch.

Smooth, 4, 8, 10 and 12 inch.

Half Round:

Bastard, 4, 5, 6, 7, 8, 10, 12, 14, 16 and 18 inch.

Second Cut, 4, 5, 6, 8, 10, 12, 14 and 16 inch.

Smooth, 4, 5, 6, 7, 8, 10, 12, 14, 16 and 18 inch.

Round:

Bastard, 3, 4, 5, 6, 7, 8, 9, 10, 12, 14 and 16 inch.

Second Cut, 4, 5, 6, 7, 8, 9, 10, 12, 14 and 16 inch.

Smooth, 4, 5, 6, 7, 8, 10, 12, 14 and 16 inch.

Warding:

Bastard, 3, 3½, 4, 4½, 5, 6, 8, 10 and 12 inch.

Second Cut, 3, 4, 5, 6 and 8 inch.

Smooth, 4, 5, 6 and 8 inch.

Knife:

Bastard, 4, 5, 6, 8, 10 and 12 inch.

Special Extra Slim Blunt Saw, 5, 5½, 6 and 7 inch.

Double Ender, 6, 7, 8, 9, 10 and 12 inch.

Cant Saw, 4, 5, 6, 7, 8 and 10 inch.

Cant Safe Back, 6 inch.

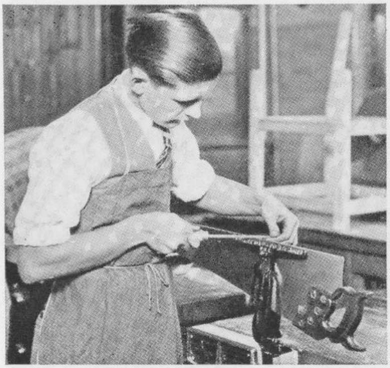
Cross-cut:

Great American, 6, 7, 8, 9, 10 and 12 inch.

Imperial, 6, 7, 8 and 10 inch.

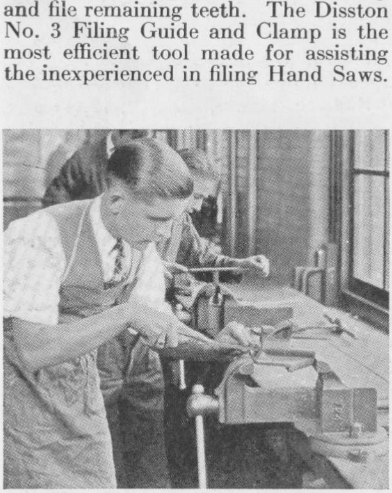
Precision, 7 and 8 inch.

Inserted Tooth, 8 and 10 inch.



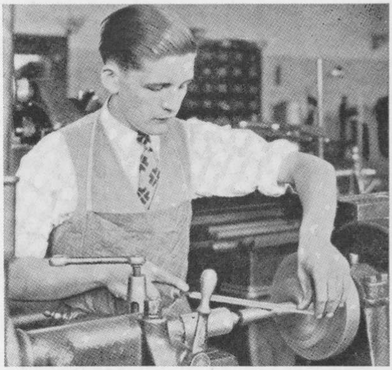
Filing a Hand Saw

Place saw in the clamp so that the teeth are about 3/8 of an inch above the jaws. Start a file cutting at the point, as shown in illustration. Raise the file on the return stroke. File every other tooth, then reverse saw in the clamp and file remaining teeth. The Disston No. 3 Filing Guide and Clamp is the most efficient tool made for assisting the inexperienced in filing Hand Saws.



Cutting a Key-Way

When the file is controlled mostly with one hand, it should be held as shown above. The index finger guides the direction of the file. This also is the position for sharpening most edge tools. Note in the illustration how the operator is using his left hand to guide the file in the cut.



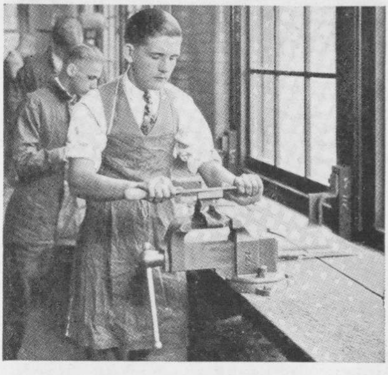
Filing in Lathe with Mill File

Turn file about 30° toward head stock of lathe. This position advances file across the work, keeps teeth free of chips, and gives smooth cut. A short stroke is used for filing lathe work and the file should be raised slightly on the return stroke.

For rapid removal of material, double-cut hand files are generally used.

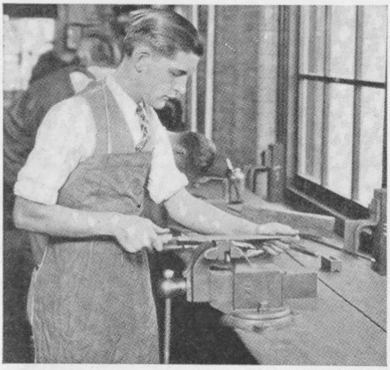
For smooth, or finish cuts, use single-cut files of mill type.

Disston's popular "new angle lathe file" is a double-cut file designed to combine fast cutting and smooth finish.



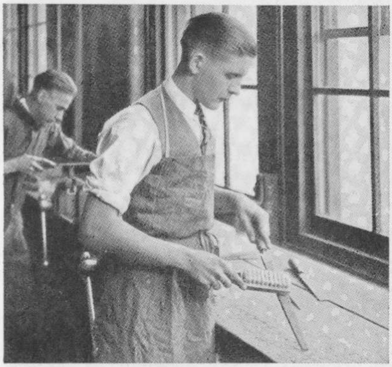
Draw Filing—a Finish Cut for Flatness

The illustration shows proper position and method of holding file for draw filing.



Bench Filing with Flat File

Proper position is with left hand at point, thumb on top of file; right hand at handle of file, thumb on top, as shown. For fast cutting, rest ball of left hand on file. Work should be on line with elbows. Use full-length stroke.



Cleaning a File with File Card and Brush

Keep file teeth free of chips and filings. This will save time and energy and result in better work. Do not attempt to clean files by knocking them against bench or work. To get best results from files, keep them clean; but clean them properly by use of file card and brush. The mechanic in the illustration is using a Disston File Card and Brush. The card loosens the metal in the gullets, the brush clears the metal from the gullets.

DON'TS

Don't forget to specify name, cut, and length of file when ordering.

Don't allow a file to become rusty.

Don't try to file when the teeth are clogged.

Don't tap a file to clear its choked-up teeth. Use a Disston File Card and Brush for that purpose.

Don't use the same file for all kinds of work.

Don't permit the file to have unnecessary contact with hard substances. The hardened teeth are easily nicked, or broken.

DISSTON STRONGHOLD FILE HANDLES

A new design in file handles. Shaped to fit the hand. Comfortable grip lessens wrist strain. Gives better control of the file. Insures more accurate work.

Made from selected wood, in five different sizes. Shaped for comfortable grip; smooth, sanded surface. Ferrule end is slit to allow for expansion and contraction when tang is inserted or removed.

The outstanding feature of the Stronghold Handle is the coiled spring-steel ferrule. It expands to allow the tang of file to enter the handle, and then holds it rigidly. No more loose files in the handles.

The coiled spring-steel ferrule and slit-end handle permit the use of several sizes of files to one handle. Replacing and removing files is easy.

Number of Handle	Length of Handle	Length of Files used in Handle
No. 1	4 inches	3 to 6 inches
No. 2	4¾ inches	6 to 10 inches
No. 3	4⅝ inches	10 to 12 inches
No. 4	5⅛ inches	14 inches
No. 0	6 inches	3 to 7 inches Taper Files

The No. 0 is a special handle used in the Disston Works for filing hand saws.

Did You Know That DISSTON Makes All These Different Items?

All of These Saws, Tools and Files
Are of the Same Quality Found in

"The Saw Most Carpenters Use"

- Back Saws
- Band Saws for Wood and metal

- Bevels
- Buck Saws
- Butcher Saws and Blades
- Carboloy Tipped Saws
- Carboloy Tipped Knives
- Chisels—Cold, Brick
- Circular Saws for Wood, Metal, and Slate, etc.
- Compass Saws
- Coping Saws
- Cross-cut Saws and Tools
- Cylinder Saws
- Drag Saw Blades
- Files and Rasps
- Grooving Saws
- Gauges—Carpenters' Marking

- Hack Saw Blades
- Hack Saw Frames
- Hand, Panel, and Rip Saws
- Hedge Shears
- Ice Saws
- Inserted Tooth Circular Saws
- Keyhole Saws
- Kitchen Saws
- Knives— Cane, Corn, Hedge
- Knives—Circular—for Cork, Cloth, Leather, Paper, etc.
- Knives—Machine

- Levels—Carpenters' and Masons
- Machetes
- Mandrels
- Milling Saws for Metal
- Mitre-Box Saws

- Mitre Rods
- One-Man Cross-cut Saws
- Plumbs and Levels
- Plumbers' Saws
- Pruning Saws
- Re-saws
- Saw Clamps and Filing Guides
- Saw Gummers
- Saw-sets
- Saw Screws
- Screw Drivers
- Screw-slotting Saws

- Scroll Saws
- Segment Saws
- Shingle Saws
- Slate Saws—Circular
- Squares—Try and Mitre
- Stave Saws
- Sugar Beet Knives
- Swages
- Tire Irons
- Tools for Repairing Saws
- Tool Steel
- Trowels—Brick, Plastering, Pointing, etc.

- Veneering Saws
- Webs—Turning and Felloe
- Wood Saws
- Wrecking Bars

This is a partial list. There are thousands of items in the complete Disston line.

HENRY DISSTON & SONS, Inc.

Philadelphia, U.S.A.

Canadian Works, Toronto, Canada

PRINTED IN U. S. A